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SCHOOL AND SOCIETY

EDITED BY J. McKEEN CATTELL

Volume XXXII SATURDAY, SEPTEMBER 13, 1930 Number 820

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SCHOOL AND SOCIETY

EDITED BY J. McKEEN CATTELL

WITH WHICH IS COMBINED THE

EDUCATIONAL REVIEW

EDITED BY WILLIAM McANDREW

Volume XXXII SATURDAY, SEPTEMBER 13, 1930 Number 820

THE PLACE OF THE LIBRARY IN HIGHER EDUCATION[1]

By Dr. ROBERT G. SPROUL

PRESIDENT OF THE UNIVERSITY OF CALIFORNIA

THE privilege of addressing you this afternoon is a great one, but I lay no flattering unction to my soul on that account. I realize fully that the invitation is an expression of the essential unity of interest between libraries and other educational institutions, a tribute to the great university of which I am a part and a reflection of your natural and proper curiosity as to the type of man who is soon to assume its presidency. Nevertheless, I am deeply sensible of the honor of appearing before this most useful association, and quite as sensible of my inadequacy to undertake professional library discussion without disclosing ignorance almost abysmal. One point of personal contact with you I do find. In going over the files of the *Library Journal* to learn something of the nature, habits and social mores of librarians, I found the following definition: "A librarian should be more than a keeper of books; he should be an educator." I felt at home immediately, for, until July 1, I am a university controller, and if I had been seeking a motto for my present office I could not have chosen a better one than that: "A university controller should be more than a keeper of books; he should be an educator."

Notwithstanding, I have found real difficulty in choosing a subject appropriate to this occasion on which I felt that I could shed light or even provoke heat. One of the things that university presidents suffer from greatly (to say nothing of their audiences) is the belief that they are competent to speak entertainingly and instructively on any topic connected physically or intellectually with a university. There is a strong disposition to ascribe to them every virtue and particularly the virtue of omniscience, at least at the beginning of their careers when all is anticipation. Their opinions are sought eagerly on questions having nothing to do with the one field in which they should be qualified to speak, the field of educational administration. The term "university president" connotes for too many people possession of powers of thought and speech far beyond what the cold facts warrant. Perhaps this unfortunate tendency reached its most luxuriant flowering in the letter sent by a women's club to the late President Eliot, of Harvard, which read:

[1] Given at the American Library Association Conference, Los Angeles, June 27, 1930.

Dear Sir:

Our club committee, having heard that you are the country's greatest thinker, would be greatly obliged if you would send us your seven greatest thoughts.

One way in which to meet this situation, and the way most frequently chosen if I may judge from addresses of university presidents to gatherings such as this, is to speak altogether in generalities, if not in platitudes. Following that path, and it is a smooth path with an easy grade, subject only to the possible objection that it seldom gets anywhere, I should address you this morning on some such broad and inspirational subject as "Books and the Progress of Civilization," or "Books, Culture and Character." I should then be able to say, as of course I am glad to say, that the library is coordinate with the university, similar in honor and influence, sharing with it the tremendous responsibility of teaching men and women; that we are afloat on the same raft of education and must labor to keep it in one piece and prevent its drifting altogether with the current. I should have on the top of my mind and the tip of my tongue a hundred excellent quotations concerning books and libraries, and could spice and flavor my own prosaic words with Addison's, "Books are the legacies that a great genius leaves to mankind which are delivered down from generation to generation as presents to the posterity of those who are yet unborn"; with Carlyle's, "All that mankind has done, thought, gained or been is lying as in magic preservation in the pages of books. They are the chosen possessions of men," or to get down to modern times, with Fosdick's, "A man's life is made by the hours when great ideas lay hold upon him, and except by way of living persons there is no channel down which great ideas come oftener into human lives than by way of books." I almost yielded to that temptation, for it would have meant a more polished address that some friendly souls might regard as literature, and it would have banished the fear, which any amateur has, of disclosing his inadequacy before a jury of experts. But I thought of the many addresses of that type that you must have listened to in your time, and I resolved to have mercy upon you even at my own peril.

So I am going to speak to you this afternoon on the problem of the university library as it presents itself to an incoming president, touching lightly and briefly on fundamental matters on which some of you could talk for hours, telling you little and asking you much. For such a discussion I am not altogether unprepared. In addition to my general knowledge of universities and the great part the library plays in the work that is theirs to do, I have during the past year had the good fortune to be able to visit a number of the better known universities of the United States. In each I have inspected the library and made some study of its physical plant, its service and the more pressing administrative problems confronting it. To that course I was moved not only by intangible considerations, but also by the seemingly large amount which we expend upon our library each year at the University of California, by certain features of the organization of our library service which all of us consider relatively faulty, and by the constantly reiterated charge, which I found duplicated practically everywhere I went, that the service was not altogether satisfactory and that the administrative cost was too high.

As a result of this more or less superficial study I am impressed with the great and complex problems which the library of a modern university faces. The relationship of the library to the educational and research work of an institution of higher learning is unique and peculiar. Time-

honored and true is the statement that the library is the heart of the university. No other division of the university articulates with all departments of instruction and research on the educational side, and certainly no department can rank with the library, which conserves and makes available the thought and capitalizes the experience of all mankind. It is indeed far more than a department; it is the common meeting ground and unifying influence for all departments. The intellectual growth and vitality of every school and every division, of every professor and every student depends on the vitality of the library. There were books at every university worthy of the name before there was instruction; if the accession of books and periodicals should cease, or if the staff of the library were discharged, education on the campus where such events happened would immediately become stagnant.

To meet needs as numerous, as complex, as wide-spread, as diverse as these is a truly gigantic task, and naturally it involves heavy expenditures—heavy expenditures for building which seldom evoke anything but praise, heavy expenditures for books, which are always advocated but in a degree much higher than they are made, and heavy expenditures for service and administration which seem to be everywhere a source of grumbling and a bone of contention. Yet only inverted reasoning could reach such a conclusion. A building is not a library, although it can and should be a beautiful home for a library. Books are not a library any more than blood is a man, although they are just as indispensable to it. A library is a collection of books, housed adequately, and if possible nobly, but, most important of all, organized for use and directed by highly trained personnel toward the ends which it has been established to serve, whether those be recreation or research. The library was called by its founder, King Osymandyos, of Egypt, "The Medicine House of the Soul." It has been called often a treasure house of intellectual wealth. Rather, it seems to me, to use an unpoetic figure appropriate to this environment, that it is a cafeteria where mental food and drink are spread out in a way to fill every need and suit every taste, and, so far as a university library is concerned, to meet every demand in every field of knowledge. This most important feature of the library—its organization for use—in the infinite complexity of modern scholarship and the inexhaustible flood of modern books, can be provided only by highly scientific methods and by highly educated and organized staffs, differing from the teaching and research staffs of the institution in training, function and privilege, and differing even more widely from the clerical staff in duties and in required educational qualifications.

All these great and complex problems we face in an intensified form at the University of California, with its seven campuses, its 51 departments, its 1,614 teachers, its 18,702 students—of whom fortunately no more than 11,383 are at one place—and the president must give a good share of his time and thought to these problems, buttressed though he be by the most skilful of specialists. What are the functions of the library organization? Certainly to gather printed material, especially in the fields of the teaching and research activities of the particular institution. Certainly and more important, to administer the collection and assist in its use, to make it available for consultation and study; for, as Frederic Harrison has said, "The first intellectual task of our age is rightly to order and make serviceable the vast realm of printed material which four centuries have swept across our path. To organize our knowledge, to systematize our reading is a necessity unless the productive ingenuity of man is to lead us at last to measureless and

pathless chaos. To read the first book we come across in the wilderness of books is to learn nothing. To turn over the pages of 10,000 volumes is to be practically indifferent to all that is good." Most certainly to serve not only the teaching and research staffs and graduate students, but also the great undergraduate student body, which is quite a different matter. For the first group the ideal is completeness of the collection in all fields, adequate facilities for individual study, located conveniently to office, classroom or laboratory, and a staff competent to meet any demand immediately. For the younger group the requirements are ample reading room facilities, comparatively few titles but those abundantly duplicated, and a staff sufficiently educated and trained to render the simpler kinds of bibliographical and reference aid.

These functions which I have just described, and which you will recognize as being far from simple, are only the functions of the university library within the campus walls. But in this day and age, a state university exists not on any campus alone but throughout its commonwealth, and there are upon its library important extramural calls to serve the public by means of interlibrary loans, by cooperation in extension activities and by promotion of alumni study. The latter is a young but growing activity in which a progressive university and its library will want to play a major part, for it seems to be agreed unanimously that a university has a definite responsibility to provide opportunities for continuing education after graduation; that, if the institution is to retain interest and loyalty, it must be, for the most numerous and influential of its graduates, on some basis other than football tickets and backslapping reunions. There must be a higher bond than these. As President Neilson says, "Alumni education should be regarded by a university or college as a salvage operation to make sure that its investment is not thrown away for lack of proper follow-up." Moreover, it seems to be agreed just as unanimously that the simplest and easiest and probably the best way to make a start on any plan for intellectual cooperation with alumni is the circulation of booklets and reading programs, such booklets as this association publishes, but backed by the authority of the institution and the personality of well-loved teachers. As soon as this has been done, a new problem will arise for the university library in supplying the recommended books or arranging for local library cooperation.

Function is not the only problem of the library before the university administrator. As an inevitable corollary of function he must think of location. Shall there be one large central library on the campus, or a great number of branch libraries, or a central library and a limited number of branches? Where shall the central library be located so as to be conveniently accessible to all departments of the university, and yet capable of expansion as well as internal rearrangement? Where shall the large reading room for undergraduates be developed, inside or outside the main library building, near to what departmental buildings or classrooms, separated or in close contact with advanced workers? What of branch libraries? Extreme decentralization would seem to lead inevitably to high cost and relatively inferior service. On the other hand, branches conveniently located with respect to the activities to be served, planned and administered as laboratories for graduate students and research workers, would seem to offer much that might be highly desirable. If such a plan is adopted, the ideal situation would seem to be the grouping of related departments such as those of biol-

ogy or engineering, and including a centrally located branch library containing all the university's library resources in the fields of the group except collateral reading for undergraduate classes. This would mean that each group of students would have its tools conveniently accessible, while at the same time the administrative units, involving continued expenditure, would be as few as possible and large enough to justify the cost of maintenance. The tendency at the University of California seems to be very definitely in this direction, for we now have, in addition to our central University Library, a library for the department of education in Haviland Hall, another library for the departments concerned with the life sciences in a great new building which has just been completed for their use, and we are planning to have a branch library for the engineering group, the proper and adequate housing of which is soon to begin. At the University of California at Los Angeles we are still in the one-library stage, but we are not expecting long to remain in that blissful situation, for this is a region of expanding educational opportunities, as well as populations, and there is every reason to believe that the great institution out on the Westwood Hills will not lag behind.

But buildings, whether they be one or many, do not make a library; nor do books. For instance, the University Library in Berkeley is a great and well-planned university library building, designed to make readily available for study the 750,000 books accumulated by the University of California in the sixty-two years of its existence. It is a magnificent educational resource, and yet it would be literally useless without a trained staff of adequate size and quality to capitalize its possibilities. Particularly is this true to-day. A generation ago students depended largely on text-books for study and used the library for irregular collateral reading, but because of changes in methods of teaching due to the rapid expansion of all fields of knowledge and the urgent need of keeping abreast of the work and the thought of the world, it may be said of the present-day student that the whole library is his text-book. Provision exists in the library at Berkeley for 1,464 readers at one time. To these the treasures of the great collection can be made available only through the medium of the library staff, whose duty it is to know the resources of the library fully and intimately and to make them quickly available to the student.

Like every other department of a university, the usefulness of the library depends largely on the quality of its staff. Nor does this staff pursue the even tenor of its way without raising questions, consciously or unconsciously, silently or vocally, to provoke thought on the part of the university administration. What shall be the education and training required? Obviously the best, but of what kind? I don't think we yet know, despite the number and high standing of our schools of library science. These schools have had great freedom thus far and have tried out many experiments in library training. I would not take from them that freedom, but I would raise a question as to whether there is not something even for the librarian in the general principles of education and in the durable satisfactions of liberal culture. Surely we can all agree that there is no knowledge for the librarian comparable to the knowledge of books, and that he who would serve scholars adequately must be something of a scholar himself. If these be the requirements of education and training, what of the compensating privileges—adequate salaries, security of tenure, limited hours of work and generous days of vacation? Also, while librarians render a valuable service

to society, they can not, from the nature of their occupation, expect either to command the high rate of pay or to enjoy the opportunities for money-making which fall to those of certain other professions or to men in business. Consequently some attention must be paid to a system of pensions or annuities which will enable this group of able workers to retire with decency after years of faithful service. If these things are not to be, we can not expect the brightest minds to be drawn into the profession of librarianship, and for our vacancies we shall have in the long run and in the majority of cases to accept second-rate minds that we do not want and that can not serve adequately the high purposes of their craft.

Finally, we come to the greatest problem of all, the inevitable problem of the university president in every field to which he turns his attention, the problem of funds —how much will it cost and what shall we use for money? The cost of the library is a large item in the budget of any university which lays claim to academic responsibility or to scholarly effectiveness. At the University of California we are spending this year $260,000 at Berkeley and $127,000 at Los Angeles for purely library purposes, and wish that it were a great deal more in each place. With expenditures as large as these a considered policy of financing would seem to be necessary, or at least desirable, rather than hand-to-mouth provision year by year. Moreover, it would seem that such a policy should not be static, but should make provision for books and binding *pari passu* with the growth of the university, should contemplate the extension of present activities and the inauguration of new ones, should foresee the ever to be expected and constantly recurring need for enlargement of the library building or buildings and the construction of new units as demanded by the development of departments and the campus building plan. But how are these factors, some of them intangible, to be foreseen with sufficient accuracy to permit their translation into a fiscal policy and a financial program? Can a program of library service be adopted and a proportion be worked out between the library budget and the total university budget based on that program? If these things are possible, perhaps we can also answer the vexed question of overhead, at least by rule of thumb, by establishing some standard and proper relation between the expenditure for administration and the expenditure for books. Generously sympathetic though a university president may be toward his library, and most presidents are, nevertheless the demand for increased and improved library service must somehow be harmonized with the necessity for keeping expenditure within reasonable limits. Service *versus* expenditure is an ever-present problem in the mind of a president, with the ideal, of course, maximum service at cost. The final practical question that I would ask of you is, "How is it possible to test the performance of a university library, to determine how nearly it approaches this ideal?"

I place these problems before you, not because I am called upon to fill a space on your program, but because it seems to me that the answers to the questions I have asked must be sought in large measure from your body, and that if you can answer them in whole or in part, it will be to the great benefit of the universities and to the permanent strengthening of your guild. The American Library Association has at the present time almost 12,000 members, probably representing half of the libraries now in existence in the United States and Canada, and certainly representing an overwhelmingly large proportion of the leadership in the library world.

It is a powerful, well-knit organization, which should dominate the whole field of activity of the librarian, and see to it that librarianship is a united guild, systematically at work on the solution of the professional problems of its diversified constituency. Much it has done along these lines already, in the preparation of library material, the work of library extension, the development and welfare of library personnel. Great tasks, beyond the power of individuals, and impossible as commercial undertakings because promising no pecuniary reward, have been planned and laboriously performed by the union of many widely scattered coworkers, moved by one disinterested aim. But there is more to be done. The first problem of any organization is that of determining what it wants to be, what it hopes to perform. There is little point to starting out in large numbers, with high spirit, if you don't know where you are going. As far as I can see, that problem has been solved for you, and in a remarkable way considering the diversified requirements of the widely dissimilar elements of your membership. The second step is so to catch the interest of your membership and so to organize the impulses that move them, their motives, their ambitions and their ideals, as to accomplish the purpose or purposes that you have determined upon. Here, too, considering the crowding demands that have pressed upon the association in the short period of its existence and the newness of the ideas with which it has had to deal, you have been remarkably successful. But the first two steps, difficult as all first steps are, are not steps that set a record. It is easy to build membership, it is easy to enlist the cooperation and activity of members of a guild or profession if you offer them protection, reward them or give attention to their personal and professional problems. But unless an organization such as this carries on public work which inspires a general conviction that it is about the people's business, that it is efficiently looking after all phases of its department of the general social scheme, it will not in the long run be an outstanding success, for it will not have the loyalty of the public or even of its own membership in times of stress. In frank confidence, therefore, I bring you some of the problems of a university president, located in that sector of the public concern in which your profession operates, and ask you to devote your experience and your ability to their solution.

This American Library Association would render a distinct and important aid to scholarship if it would organize within itself an efficient fact-finding body to supply university and college presidents with the basic material that would enable them to cope intelligently with the fundamental problems which I have attempted to outline. For example, would it not be possible for you to work out formulas for reducing to common denominators the statistics which summarize the practices and the performances of individual libraries? I am not pleading for uniformity of practice, for a recognition of university libraries. That is unnecessary and probably undesirable, owing to differing local conditions; but at the present time, variations in practice and in nomenclature are so wide as to invalidate comparison, and without comparisons it is impossible to establish criteria. What I am thinking of is work similar to some that you have already undertaken—the Works report, the figures compiled annually by your committee on salaries, the statistics published in the "College and Reference Library Yearbook," the report distributed last year on "Budgets, Classification and Compensation Plans for University and College Libraries" and the data relating to

university libraries brought together in that excellent work, the "American Library Association Survey." All these are attacks upon phases of the problems I have in mind, of varying degrees of thoroughness and of more varying value to the perplexed executive, who complains neither of errors of omission nor of commission, but who, like Oliver Twist, calls insistently and somewhat brazenly for more.

In closing, let me sound an inspirational note, even if I have taxed your patience with a dry-as-dust business-like address, by repeating to you the words of a great university president who was one of my predecessors at the University of California—Benjamin Ide Wheeler. These words were spoken at the laying of the corner-stone of the University Library at Berkeley, and seem to me to express clearly, forcefully and simply what is in the hearts of all of us who believe in the power of libraries to contribute to the salvation of man:

> Stand here square and true throughout the generations to serve the life of men; to encourage and confirm the true; to defeat malice and the lie; to shelter those zeals which conserve, upbuild, unfold; to restrain the hands of such as would destroy, pervert or waste the stored up substance and experience of the ages; to make men understand each other by learning one of the other; to dissolve the barriers of prejudice between nations, bloods and creeds, and bring men to sit down together as the sons of God.

STANDARDIZATION AND FLEXIBILITY IN HIGHER EDUCATION

By President GUY E. SNAVELY
BIRMINGHAM-SOUTHERN COLLEGE

STANDARDIZATION in higher education is important. In some particulars standardization among colleges and universities is imperative. To avoid dull uniformity and to encourage progress a certain amount of flexibility is also desirable and really imperative.

The American college is a modified transplanting from the mother country, England. Since the establishment of our nation, the modification progress has continued so that the present college is quite different from that of colonial days. This is notably true in the matter of curriculum, entrance requirements, teacher training, library and laboratory facilities, and in extracurricular activities.

So diverse have become the modifications in the American college that there has evolved naturally the regional standardizing agencies. During the generation after the Civil War, the situation had become quite chaotic in the Southern states. The words "college" or "university" were glibly used by institutions that could hardly be rated now as first-class high schools. The more high-sounding the title, the more likely would an institution be unworthy.

In other sections of the country, as well as in the South, there seemed to be no uniformity of entrance requirements, a very uneven standard of scholarship required of college students and especially complete confusion concerning the dividing line between the high-school department and the college proper.

In the fall of 1895 the Association of Colleges and Secondary Schools of the Southern States was organized, with Vanderbilt University, the University of North Carolina, the University of the South, the University of Mississippi, Washington and Lee University and Trinity College as charter members. The proclaimed purpose of this organization was to bring about the avoidance of the confusion and low standards just described.

Earlier that same year a group of interested institutions had met for similar purposes and organized the North Central Association of Colleges and Secondary Schools.

The other chief regional associations—those of the Middle States and Maryland and of the New England States—have been in operation for about the same length of time, but with practically no emphasis on standardization until very recent years. In fact, the New England Association still is a meeting of a group of executives from the leading colleges and secondary schools of that section, who come together annually for purposes of discussing problems of mutual interest and for general social intercourse. Within the last year or two this association has finally decided to allow its membership list to be considered the approved list for that territory.

About ten years ago the two larger associations, the Southern and the North Central, took the lead in going into almost meticulous statement of a great number of standards required for approved member colleges. Almost simultaneously the Middle States and Maryland Association did likewise. Representative men from all sections of the country were organized into a committee on standards by the American Council on Education in Washington. This committee evolved a series of some twenty standards for colleges that have become generally adopted in a nationwide fashion.

In contrast to the evolution of standardization among colleges in the United States is the situation in Great Britain. Although there is considerable uniformity in the standards of the four Scottish universities, there are considerable differences among them. More noticeable is the lack of standardization among the colleges of the two great universities of England, Oxford and Cambridge. Even the provincial universities, like London, have considerable flexibility compared to their sister American institutions.

It has become uniformly accepted in America that the college matriculate should have practically completed the regular four-year senior high school course. In the colleges of Oxford, however, there is no such uniformity.

Further, in the Oxford colleges there is no uniform curriculum required by the twenty odd colleges, nor any set period of years of residence required. The residence requirement has become more or less uniform according to whether the candidate enters for the so-called "pass" or "honors" course.

Quite different from the American requirement of so many semester or quarter hours, with so many quality credits, the Oxford graduate passes three comprehensive examinations. The "responsions" correspond more or less to our entrance examinations. The "moderations" are examinations taken about the middle of the college course. The satisfactory passing of the second "public" examination means the completion of the college work and the awarding of the baccalaureate degree.

After all, the chief test of any institution is its product. The British college graduate seems to many to indicate that he is the product of an excellent type of education. On the other hand, most leaders in our country doubtless prefer our present methods, or modification thereof.

It is to be noted, however, that there is a tendency toward the comprehensive examination method in our own colleges, started some years ago by Harvard University.

For a time it seemed, and it may still seem to some, that the commissions on higher institutions in the larger regional standardizing agencies in our country were taking their task and their authority entirely too seriously. I believe and hope that this tendency has been checked.

Granting the requirement that it is desirable, almost imperative, that the senior professors have the equivalent of the doctor

of philosophy degree, notable exceptions should be permitted without unfavorable action being taken. For example, the Johns Hopkins University has on its faculty a professor of geology who has attained international prominence for his scholarly work in his field. This gentleman never had any formal educational training beyond the high school. His worth has been more recently recognized by his elevation to the deanship of the academic department at Johns Hopkins.

Doubtless a number of conspicuous teachers who have done little formal graduate work and practically no research work are to be found in a number of excellent institutions. Such teachers, who are born teachers or who have trained themselves, should not be summarily dismissed if their effectiveness as great teachers is definitely proved.

More recently a number of American colleges are attempting to improve their output by the introduction of new schemes. Granting that in some cases the attempts may be mostly for publicity purposes, on the whole I believe they are sincere and will in time mean much in the advancement of higher education.

Judgment should be withheld until results can be shown by experiments in higher education, such as the honors courses system at Swarthmore, the freshman house arrangements at Harvard and Yale, the Meiklejohn junior college scheme within the liberal arts college of the University of Wisconsin. The tutorial system in vogue for some time at Princeton is quite different from the one at Oxford. Both are doubtless good in many ways, but are also open to criticism. For most American colleges the expense involved makes the system impractical.

The question of the size of classes is now becoming somewhat debatable. The size of faculty salaries is not necessarily constant, because of the variation of living condition expenses in different sections of the country. Emphasis on the number, rather than on the selection, of books in a college library is a rather doubtful requirement. The supervising commissions will doubtless take more and more into account the general college situation rather than its meticulous adherence to every detail.

On the other hand, there are certain standards that every college should be glad to follow and which every standard commission should require.

Innately an institution could not rightly assume to be a college unless its admission requirements were standard. With modifications incident to such experiments as honors courses, there should be a general evenness in graduation requirements. The financial support should be sufficient to justify the amount and type of work offered. The general equipment in buildings, as well as laboratories, should be ample. Athletics and other student activities should not take too important part in the student life of the college.

The acid test, after all, is the graduate. If he can complete successfully, in the minimum time, the work of the recognized graduate and professional schools, the college would seem to have accomplished its aim. To achieve this result, the great problem, standard or no standard, is to obtain and retain the great college teacher.

EDUCATIONAL EVENTS

THE KENT, ENGLAND, COUNTY LIBRARY SCHEME

SINCE 1922 the Kent County Library scheme has made remarkable progress, and last year, according to the eighth annual report, as summarized in *The Times Educational Supplement*, the issues of books for the first time exceeded 1,000,000—namely, 1,223,030—compared with 965,216 in 1928.

The library scheme was originally passed by

the county council in 1920, and it was first arranged to supply rural areas with books, and afterwards to give attention to urban districts. The report states that all villages with a population of over 1,000 now have library centers, except four which have never made application for a center. In May, 1927, when the special committee appointed by the Board of Education to consider the position and future policy of the public libraries in England and Wales issued their report, they criticized the absence of library service in the more populous areas of the country. In Kent there is still a large population not served by the county library, which is accounted for by the fact that branches have not yet been established in several large towns, including Dover, which has about 40,000 inhabitants.

The Kent County Library report also points out that in towns with a population greater than 5,000 a somewhat different library service from that given to the village is necessary. The service in such places needs to be more nearly akin to the municipal library service; it is necessary to acquire a building—or part of a building—which can be used solely as a library, and to employ a paid librarian. For such places the county library committee has adopted a scheme with the cooperation of the borough, urban, district or parish council concerned. By the end of March, 1930, twelve of these branch libraries had been established: full-time branches at Ashford and Broadstairs, and part-time branches at Birchington, Cranbrook, Milton Regis, Queenborough (an autonomous library authority which has entered into a scheme of cooperation with the county library), Rainham, Sandwich, Sheerness, Swanscombe, Walmer, Westerham and Westgate-on-Sea.

In the mining areas of the county the provision of library facilities has been difficult owing to the shift system, but centers are maintained at Aylesham, Betteshanger, Betteshanger Colliery, Chislet, Elvington, Eythorne, Hersden, Nonington, Shephardswell and at other villages where the population consists of mine and other classes of workers. During the year the stock of books has been increased from 101,250 to 133,746; 14 new centers have been added, making a total of 363, and the number of borrowers has increased from 49,192 to 62,323. "It is encouraging to find," says the committee, "that the percentage of non-fiction issues has again increased; the percentage this year is 13.3, compared with 12.5 in 1928 and 11.7 in 1927." The committee, realizing that many villages are without ready reference books, such as a dictionary, atlas, encyclopedia, sent out report forms to local librarians asking whether, in their opinion, such books would be useful in the villages. Of the 328 reports returned, 149 show that such provision would be welcome. A striking increase is noted in the use of the students' section. Last year 7,560 books were sent out to individual students; this year the number is 13,126, the increase being due to the issue of the printed catalogues which have made readers aware of what books are available.

STATISTICS OF COLLEGE AND UNIVERSITY ATTENDANCE

STATISTICS given out by the Office of Education show that in 1900, 5,911,425 persons were in the college age group, 7,242,147 in 1910 and 7,321,028 in 1920. The numbers for the other years are estimated from these census counts, the estimated number for 1928 being 7,384,127.

In 1900, 2.8 per cent. of the college-age group were enrolled in regular sessions of universities, colleges and professional schools. In 1910, 3.7 were so enrolled; in 1920, 6.3 per cent., and in 1928, 11.8 per cent. The rate dropped off in 1918 at the time of the World War. Teachers college records were separated from other colleges and universities in 1920, and when all students in these institutions taking work of the college level are considered, the percentage of the college-age group taking college work has increased from 2.2 per cent. in 1880 to approximately 18 per cent. in 1928.

At the present time, after deducting the number of those in graduate work and those in professional departments above the fourth year of college preparation, approximately one person out of every six in the college-age group is training for culture or leadership in the arts and sciences, or for a career in law, medicine, dentistry, theology, teaching, engineering, business or for opportunities in administration or in a managerial capacity or in some other field in which a college training seems to be of prime importance.

Some of these are training for improvement without having any particular occupation in mind, but many of those in the arts and sciences and most of those in the professions have a more or less definite employment in mind upon graduation.

A survey of current literature reveals the fear which is expressed by careful students in the field of higher education that we may be training too many for employment, too many for the competition which exists for landing jobs, too many for the money value of education, and that we might well stress the civic values, the social values and the cultural values of college training more extensively than we are now doing.

However, these figures indicate that the educational level of our adults is being raised considerably. To-day less than 2.5 per cent. of our adults are college graduates, and another 4.6 per cent. have had some college training.

INFANT MORTALITY IN AMERICAN CITIES

THE downward trend of infant mortality in the cities of the United States is continuing, according to a report by the American Child Health Association which gives for 1929 66.2 deaths among each thousand births.

Next to the rate of 64.9 attained in 1927, the rate for 1929 is the lowest ever recorded for the cities of the country. The decline has been almost continuous since 1915 when the Birth Registration Area, formed for the collection of dependable information, was organized. In 1928 the rate rose slightly to 68.3 over the low point of 64.9 in 1927. Fifteen years ago the rate was near 100. To-day the rate is but two thirds what it was just after the World War started.

The report covers 720 cities in the Birth Registration Area, which now includes forty-six states and the District of Columbia, which have satisfactory registration laws and record 90 per cent. of the births. The figures in the report are drawn from the provisional summaries of the U. S. Census Bureau and from state and local authorities.

"The 1929 rate," said the announcement, "was the lowest ever attained in Chicago, Philadelphia, Detroit, Boston and Baltimore." For the five-year period from 1916 to 1920 Pittsburgh exhibits the most outstanding decline, the rate dropping from 120 to 77 in the period from 1925 to 1929.

Portland, Oregon, had the lowest rate among the cities over 250,000 population. Seattle was a close second with 46 and Minneapolis stood third with 49. Among the 10 largest cities in the country, St. Louis and New York tied for first place with rate of 59. Close on their heels came the metropolis of the Middle West, Chicago, with a rate of 60. Other figures were: Cleveland 61, Philadelphia 62, Los Angeles 65, Detroit and Boston 69, Baltimore and Pittsburgh 73.

St. Paul, Minnesota, was in the lead with a rate of 46 among the cities of the 100,000 to 250,000 class. Union City, New Jersey, stood first in the 50,000 to 100,000 class with a rate of 25. In the 25,000 to 50,000 class, another Jersey community, West New York, stood in the forefront tied with Revere, Massachusetts, each having rates of 26.

Among the smallest cities with populations from 10,000 to 25,000, Northbridge, Massachusetts, had the low rate of 15.

As a group the cities of the Pacific Coast continue their undisputed leadership as the banner home for babies. Oregon and Washington lead the procession, with the cities of Minnesota in third place. Vermont, Utah and California cities show the same average rates.

THE RETARDATION OF SCHOOL CHILDREN

A STATEMENT issued by the Office of Education summarizing a study dealing with the retardation of pupils states that 869 first-grade pupils are spending their first year in schools, that 230 are spending their second year, 27 their third year and 3 others their fourth year. This makes 293 repetitions among the 1,129 first-grade pupils. In other words, approximately 25 per cent. of the pupils entering 45 schools require not one, but two or more years for the completion of first-grade work.

The percentage of pupils enrolled in the various grades who have repeated increases up to the sixth grade; here we find that more than

50 per cent. have repeated some work. There is a material lowering in the seventh and eighth grades from that in the sixth. Approximately 42 per cent. of the time spent in school by the entire group is due to repetition.

The greatest number of repetitions occurred in grade 1; approximately one half as many in grade 2, and from this point there is a gradual reduction in the number of repetitions in the successive grades. The fact that the survival list grows smaller accounts in part for the reduction in number of repetitions in the upper grades, but not entirely, for we find the percentage of repetition increasing among those who survive.

The statement says that many educators recommend that the course of study, the curriculum and the instruction should be so well adapted to pupils' needs as to eliminate failure. This is a fine ideal, but probably difficult of realization. Such hindering factors as short terms and poor attendance may effectively prevent regular school progress. But certainly there must be something radically wrong when nearly one half of the pupils are required to repeat a year's work.

The tabulating indicates a much smaller percentage of skipping than of repeating among the entire group. Beginning with 9 pupils enrolled in grade 2 who have skipped the first grade, the number increases gradually up to the eighth, where we find that approximately 16 per cent. have skipped grades. Grades 1 and 2 have the greatest numbers of pupils skipping; the third grade has approximately one half as many as either of the first two; the fourth about one half as many as the third, and from there on we see a gradual decrease.

It was found that the number of pupils repeating any grade once is greater than the combined number of those repeating two and three times. Totaling the summaries and converting these to years of school work repeated reveals the amazing fact that the 7,632 pupils enrolled in the eight grades have taken 3,132 years of school work more than once.

COURSES IN BUSINESS ORGANIZATION

COURSES in business organization and management are meeting with general favor and enjoy considerable popularity in the colleges and universities of the country, the specialist in commercial education, J. O. Malott, stated orally to a representative of the *U. S. Daily* at the U. S. Office of Education, April 19.

Next to the field of accounting, more colleges and universities offer courses in this subject than in any other. In accounting, 96 are offered by 348 institutions compared with 93 in business organization and management offered by 329 institutions, he said.

Of the 329 colleges offering the business organization subjects, 176 reported an enrolment of 20,689 students. In the 329 institutions, 805 instructors take care of 1,256 courses.

Harvard University leads in enrolment in the subject of business organization and management, with 2,248 students. New York University is second, with 2,226, and Northwestern third with 2,066. The data on Columbia students are incomplete.

Columbia reported the most courses of the subject, with 36; Northwestern second, with 32; New York University and the University of Illinois third with 27 each, and Ohio State University fourth with 26 courses.

The courses in business organization and management give a general background to business organization. General courses on management are included so that the student may get acquainted with fundamental facts of business.

A number of the institutions offer special curricula in personnel management, management of credit and collection, factory management and similar business functions related to management, Mr. Malott said.

As to the general statistics made public relative to the courses in business organization and management, Mr. Malott stated that:

> Of the 329 institutions, 117 reported only one course; 67 reported two courses, and 30 three courses. There are 34 institutions which offer four courses; 22, five courses, and eight, six courses. There are several which offer seven courses, 11 which offer eight and seven which offer nine. A total of 26 offer 10 or more courses.
>
> In each of 184 of the 329 institutions, only one instructor offers courses in business organization and management; in 66 institutions, two instructors; in 28, three instructors, and in 18, four in-

structors. In 12 institutions, 10 or more instructors offer courses in this field.

Curricula that could be classified as general business, business administration or management were reported 105 times. A study of the frequency with which other groups of curricula were reported shows that factory management or production management were reported by 17 institutions; personnel management or industrial relations by 14; commercial law by 13; commercial engineering by 9; credits and collections by 5, and business administration applied to the extractive, electrical, chemical, machine and other industries by 19.

The courses in business organization and management that do not have curricula in this field can be elected by students majoring in other subject-matter fields.

PRIMITIVE INDIAN EDUCATION

ACCORDING to the New York *Times*, definite evidence has been gathered by the department of anthropology of the University of California, showing that the Indians of the Pacific Coast had a definite educational system previous to the settlement of that section by the white man.

Following up evidence uncovered by Professor A. L. Kroeber, chairman of the department, in a study of the Yuki Indians, E. M. Loeb, lecturer in anthropology, has accumulated further data on the Yuki school system and found similar systems among the Kato and Wailaki of the Athabascan language group. All these tribes are located in the southern Eel River district.

The basis of the educational system was two secret societies. The elementary schools dealt with the ceremonials, dances, ritual and songs of the old ghost dance religion, with which all boys of the tribes had to be familiar in order to be initiated to membership in the group. The high schools dealt with the more secret ritual of the kuksu or "big head" religion, of which all men and women doctors and prospective chiefs had to know.

Through previous work, Loeb has shown that the fundamental ideas of the ghost dance religion are wide-spread among primitive peoples throughout the world, and probably were introduced to American soil at least 10,000 years ago. The teaching of the tenets of this religion in organized schools was practiced by many primitive peoples, but the present discovery presents the first evidence that such schools were maintained on the North American continent.

The kuksu or "big head" society is a more recent development, about whose origin little is known. It is peculiar to America.

The high schools were open to girls as well as boys, among the Kato in separate sweathouses, but among the Yuki in the same sweathouse, thereby making the school coeducational. The chief of the tribe was head of the school system, with his wife in charge of the girls. The high school was in reality a professional school. Aside from training young men for chieftainship, both girls and boys were instructed in the mysterious art of healing the sick, the boys at the age of eighteen or nineteen and the girls earlier.

RURAL LIBRARY EXTENSION INSTITUTE

THE first Rural Library Extension Institute for state and county library workers was held at Madison, Wisconsin, from June 30 to July 18, in connection with the ninth Rural Leadership Summer School of the University of Wisconsin. The purpose of the institute was to afford library extension workers an opportunity to discuss rural advancement problems with other rural workers, and state and county library problems with experienced workers in their own field.

The institute was held under the auspices of the American Library Association Committee on Library Extension, with the cooperation of the American Library Association Board of Education for Librarianship and the Carnegie Corporation of New York. Sixteen states, six of them southern, were represented by the institute members. The newly appointed American Library Association regional field agent for the South, twelve state library extension workers and seven county library workers were present. Alice S. Tyler, recently dean of the School of Library Science at Western Reserve University, directed the institute, and Harriet C. Long, of the Wisconsin Free Library Commission, was instructor. Julia Wright Merrill, library extension specialist of the American Library Association, gave lectures on legislation, state aid and county library laws, and Clarence B. Lester, sec-

retary of the Wisconsin Free Library Commission, lectured on state appropriations, budgets and similar matters.

At the beginning of the institute each member was assigned one of the following projects to present and discuss at the end of the three weeks:

Organization and function of a state library extension agency.
The state's responsibility for stimulating county library service.
Professional standards in library service: certification, examinations, etc.
Federal and state financial aid for rural library extension.
Demonstration as a method of promoting support of library service.
Book service from a state center *vs.* county library service.
Leadership of state library agency in securing advanced library legislation.
The state library extension agency as adviser in founding local library.
Basic or fundamental items in the state laws regarding the establishment and maintenance of free public libraries.
Costs of county library service, based on questionnaire reports.
Contracts with existing libraries for county library service.
Relationship between independent town libraries and the county system.
Local responsibility for housing of county branches and stations, and for custodian.
Service to rural schools by the county library.
Library service to children in the rural area.
Detailed plan for library service for a specific county, including survey, budget, publicity, etc.

Some of the larger and more detailed projects were assigned to two members in collaboration, and one project was assigned to three persons. In addition to working on these projects, members of the institute attended daily classes in rural sociology, under Professor J. H. Kolb, head of the Rural Leadership Summer School, and other classes in adult education under John D. Willard, research associate for the American Association for Adult Education.

EDUCATIONAL NOTES AND NEWS

MR. LEWIS E. MYERS has been elected president of the board of education of Chicago, Illinois, to succeed H. Wallace Caldwell. Mr. W. H. Brandenburg was reelected vice-president of the board.

DR. FRANCIS PENDLETON GAINES will be inaugurated president of Washington and Lee University on October 25. He was formerly president of Wake Forest College.

HERBERT T. CONDON, controller of the University of Washington since 1917 and a member of the administrative staff since 1903, will become dean of men on October 1. William E. Cox, dean of the college of business administration, is leaving that position to become controller.

F. S. HYER, for ten years president of the State Teachers College, Whitewater, Wisconsin, has been appointed to the presidency of the Teachers College at Stevens Point.

THE appointment of Grace G. Crocker, of Cambridge, Massachusetts, to the newly created office of executive secretary of Wellesley College has been announced by President Ellen F. Pendleton.

MR. M. H. THOMAS, formerly assistant superintendent of schools of Harrisburg, Pennsylvania, has been elected superintendent for a four-year term.

MR. L. H. LAMB, who was formerly principal of the high school at Flint, Michigan, has assumed the office of superintendent of schools, to succeed C. V. Courter, who has resigned.

MR. JOHN A. TRUE, of McCook, Nebraska, has been elected superintendent of schools at Council Bluffs, Iowa, to succeed Theodore Samm.

MR. L. D. HENDERSON, formerly commissioner of education in Alaska, has been elected district superintendent of schools at Burlingame, California.

FRANK R. MOREY, assistant director of the teacher certification bureau of the Pennsylvania Department of Public Instruction, for the past

two years, has been elected supervising principal of the Swarthmore, Pennsylvania, schools, succeeding Arthur W. Ferguson, who is now superintendent of schools of York.

WALTER ROBERTS, who has been connected with the public schools of Philadelphia for twenty-five years, has been appointed principal of the West Philadelphia High School for Boys.

W. W. RAKER, formerly superintendent of schools at Bloomsburg, Pennsylvania, has been appointed a member of the faculty of the State Teachers College at Kutztown, Pennsylvania.

DONALD D. KENNEDY, instructor during the past three years in accounting at the University of Pittsburgh, has resigned to accept a professorship in business administration at Clarkson College of Technology, Potsdam, New York. He will be head of the department in his new position.

DR. WALTER E. SPAHR, chairman of the department of economics at the School of Commerce, Accounts and Finance of New York University, has received the eighth annual Alvan T. Simonds $1,000 Economic Contest Prize for an article on "The Federal Reserve System and the Control of Credit."

A. W. GORDON, secretary of the Maine State Education Association, has announced that the association will present Florence M. Hale as a candidate for the presidency of the National Education Association at the Los Angeles convention.

MRS. ELIZABETH WHITE PARKS, of Coulterville, Illinois, has been appointed publicity director and instructor of journalism and freshman English at Cornell College.

DR. JONATHAN H. WAGNER, commissioner of education in Alaska for the past seven years, has resigned.

MR. LAURENCE GEORGE BOWMAN, who for over fifty years has served on the staff of the boys' department of the Jews' Free School, in Bell-lane, Spitalfields, England, and who since 1908 has been head master, is to retire at the end of October.

MISS BESS GOODYKOONTZ, assistant U. S. commissioner of education, returned in August from a trip to South America, where she represented the United States as an official delegate appointed by President Hoover at the Child Welfare Conference at Lima, Peru. Her return voyage included a visit to the Hawaiian Islands.

DR. OLIVER P. CORNMAN, associate superintendent of the Philadelphia public schools, died on September 6, at the age of sixty-four.

DR. EPHRAIM DOUGLASS ADAMS, one of the founders and a director of the Hoover War Library, died at his home on the Stanford University campus on September 3. He had been professor of history at Stanford for twenty-eight years. He was sixty-four years old.

MR. GUY WHITEHEAD, superintendent of schools at Lexington, Kentucky, died at Louisville recently at the age of thirty-nine.

CHARLES THEODORE GREVE, former professor of law in the Cincinnati Law School, died on September 5 at the age of sixty-seven.

DR. HENRY P. EMERSON, superintendent of schools of Buffalo, New York, from 1893 to 1918, died recently at his home in Middleton, Massachusetts, at the age of eighty-four.

A $500,000 trust fund for the establishment of a school of journalism is bequeathed to Boston College by the will of the late Mrs. Mary E. Taylor. The trust fund is in memory of Mrs. Taylor's husband, the late William Taylor.

THE twenty-fourth International Amerikanisten Congress will meet at Hamburg, Germany, during the week of September 7 to 15. The following are the most important subjects to be considered: "The American Indian and His Relations to Other Americans," "Archeological Finds in America and Their Periods," "Customs and Habits of the Indians, Their Origin and Extension in the Old and New World," "The Language of the American Indian," "Beginnings of American History, with Especial Consideration of the Time of Discovery and the First Settlers" and "Geographical and Geological Problems in Connection with Man's Work." "The Culture of the Indians before Their Contact with Europeans and in the Present" is to be the main subject of discussion of the congress

under the leadership of Professor Dr. Sapper, Wurzburg.

AT Birmingham-Southern College there are but three changes for 1930–31 in a faculty of sixty-six: Andrew Hemphill, of Fort Worth, Texas, becomes director of music, in place of Clare John Thomas, who joins the faculty of the Chicago Musical College; E. Sydnor Ownbey, who is studying for his Ph.D. at Vanderbilt, has been appointed assistant professor of English; M. F. Evans, who is completing this summer his Ph.D. requirements at the State University of Iowa, has been made associate professor in charge of the new department of public speech.

NEW faculty appointments at the University of Washington include the following: Edward W. Gifford, former curator of the museum of anthropology at the University of California, lecturer in anthropology; Dr. Donald F. Grass, head of the department of business administration at Grinnell College from 1918 to 1930, visiting lecturer in business administration; Mary Blaisdell, former instructor in dramatics at Pomona College, associate in English; Burton W. James, director of the Seattle Repertory Playhouse, assistant professor of English; Florence B. James, director of the Seattle Repertory Playhouse, assistant professor of English; S. Harold Shefelman (LL.B. Yale, 1925), lecturer in law; Leo Puymbroeck (B.A. Washington, 1924), associate in design; Dr. Joseph P. Harris, former associate professor of political science at the University of Wisconsin, professor of political science; Edgar T. Thompson, former assistant professor of sociology at Earlham College, associate in sociology.

THE fourth biennial conference of the World Federation of Education Associations will meet at Denver, Colorado, from July 27 to August 1, 1931, it has been announced by the federation president, Dr. Augustus O. Thomas. The program will feature plans for the promotion of world understanding and good-will.

THE board of trustees of Indiana University has authorized the organization of a bureau of social research in the department of economics and sociology. The bureau will be located in Indianapolis and will begin to function September 1. It will be concerned particularly with the establishment of a system of monthly reports of statistics from health, relief and court agencies by census tracts in Indianapolis and with the systematic analysis of the data reported. It will also probably be the policy of the bureau to undertake one of several projects, proposed by interested organizations, which is of concern to the state as a whole.

THE Virginia Legislature at its 1930 session passed measures making compulsory education for all deaf and blind children of the state. Special classes will be maintained for the education of blind and partly blind children in the public schools.

THE summer school of the University of Southern California will next year be divided into two equal sessions of five weeks each, with classes held on six Saturdays during the summer schedule. In the past the summer school has been divided into three unequal sessions of eight weeks, six weeks and a three-week post-summer term. Arrangements are also being made whereby students may attend the 1931 convention of the National Education Association, which will meet in Los Angeles during the week of June 29, 1931.

GRADUATE standing will be required of all entrants to the University of Washington Library School in 1933. At the present time students of the senior class are admitted.

The School Board Journal reports that a radical reorganization of administrative division of the Cincinnati, Ohio, schools was effected on July 1, with the placing of the schools under the manager plan. The outstanding change was the placing of responsibility for administration on the superintendent, who becomes in reality a public-school manager. Formerly, the educational responsibility was vested in the superintendent, financial responsibility in the clerk-treasurer and business responsibility in the business manager. Under the unit-executive plan as operated at present, the present business manager, Mr. C. W. Handman, becomes assistant superintendent in the department of business, reporting to the superintendent of schools. The departments of education and business administration constitute

two main departments, with bureaus of housing, supplies, lunchrooms and finance, the latter to be developed as a central accounting and budgeting department. The new plan is the result of a special study of the school system made three years ago by the Cincinnati bureau of governmental research.

ALFRED ECKHARD ZIMMERN, of New College, University of Oxford, has been elected the first Montague Burton professor of international relations for seven years from October 1, 1930. Mr. Montague Burton, of Harrogate, recently offered to contribute £1,320 a year for seven years for the maintenance of a professor of international relations, and on May 21 a decree was passed in Congregation accepting the offer. Mr. Burton has intimated that if, after six years, he and the Hebdomadal Council should decide that the continuance of the professorship would be of advantage to the university he will be ready to provide a permanent endowment. Mr. Zimmern is deputy director of the League of Nations Institute of Intellectual Cooperation (Palais Royal, Paris) and director of the Geneva School of International Studies. Formerly a fellow and tutor of New College, he served for some years under the Board of Education and in the Foreign Office; was Wilson professor of international politics in the University College of Wales, Aberystwyth, for two years, and in 1922–23 was acting professor of political science in Cornell University.

KINGS COLLEGE, Halifax, Nova Scotia, the oldest college in the British colonies, having been granted its charter by George IV 142 years ago and removed from New York by the loyalists at the time of the American Revolution to Windsor, N. S., has amalgamated with Dalhousie University. On this occasion the beautiful new buildings were thrown open to visiting graduates and undergraduates.

GRADUATES of the college of engineering of the University of Wisconsin who have distinguished themselves by their scholarship, personal qualities and general worth will receive a starting salary $25 a month higher than their less distinguished classmates and will maintain this advantage for at least a year or two. This plan is being put into effect for the first time this year by a corporation employing many engineers, which has addressed the following letter to Professor G. L. Larson, head of the department of steam and gas engineering: "In order to establish a salary schedule that equitably recognizes distinctions in scholastic standing, personal qualities and general worth we have this year established two salary groups. One group naturally is provided for those graduates whose record thus far has stood out above most graduates. The other group is provided for those who have done well in their work so far. This salary arrangement, we feel confident you will agree, is fairer to your graduates. Experience in our organization gives sufficient proof that young men in this latter group can in numerous cases ultimately catch up to and outstrip those who started on a higher level." Another employer is this year making a salary differential of $20 a month in favor of the men who hold the master's degree. This is the first case on record of any such recognition by an employer of the value of graduate work.

SECRETARY RAY LYMAN WILBUR, as chairman of the National Advisory Committee on Illiteracy, has written to all religious bodies throughout the United States asking for their cooperation in the effort to eradicate illiteracy in this country. The astounding facts on illiteracy have been called to their attention and an appeal made for their cooperation in the endeavor to eliminate this handicap from several millions of our citizens. In his letter Dr. Wilbur says: "The National Advisory Committee on Illiteracy, appointed with the approval of President Hoover, is endeavoring to stimulate interest in eradicating illiteracy in the United States. The success of the proposed campaign will depend in a large measure on the active cooperation of all religious bodies throughout the country. The census of 1920 reported 4,931,905 persons, ten years of age and over, unable to write in any language. This number comprises only those people who have no education whatever. Of this number, 1,242,572 are native-born white, 1,763,740 are foreign-born and 1,842,161 are Negroes. These people are sheer illiterates. The number of people unable to read with understanding or to write a letter is variously estimated from 15,000,000 to 20,-

000,000. The National Advisory Committee on Illiteracy appeals to your organization to help awaken nation-wide interest in educating these underprivileged people. The handicap of not being able to read and write and the economic loss to our country are inestimable. Please give us your whole-hearted cooperation."

THE *Health Bulletin* of the New York State Department of Health reports that observations of health work in Moscow, reported by Mrs. Anne Murray Fortenbaugh, formerly director of the Albany Guild for Public Health Nursing, give interesting facts concerning the activities of the Soviet Government in this field. The city of Moscow is divided into thirty-five districts, each having a health center and hospital. Women are required by law to report to a prenatal clinic as soon as pregnancy is suspected, and to attend the clinics monthly until the seventh month and then twice monthly, or weekly, as indicated. They are relieved from their work at the end of the seventh month and do not return until two months after delivery. They are retained on the pay roll for this four months' maternity leave. All deliveries are in hospitals. Breast feeding is emphasized. Day nurseries are provided by every industrial plant and the women are given time to nurse their babies during working hours. The children are cared for in the nurseries until they are two or three years old when they are put in nursery schools until they reach school age. Regular physical examinations and supervision of preschool children are required. All this care is provided free of charge.

A CHARTER was filed with the New York Secretary of State on August 12 for the Society of Friends of the University of Rome, Inc., organized under the membership corporation law of the state for educational purposes and for the encouragement of intellectual pursuits, which numbers prominent New Yorkers among its directors. Objects of the new corporation include the following, as specified in the organization papers: To cultivate closer relations between the peoples of the United States and Italy and to draw them closer together by bonds of intellectual friendship. To disseminate among the peoples of both countries a better knowledge of the ideals, traditions, aims and intellectual and artistic accomplishments of each other. To raise funds for the construction of the Casa dello studente (students' house) at the University of Rome, Italy, and to help create and maintain the so-called University City. To promote the establishment of a library on English and Italian subjects. To establish scholarships for the aid of deserving persons showing merit in their secondary school work, college or university career. To encourage the study and dissemination of English and Italian literature, art, science, music and culture. To promote fellowships in Italy for American students and in American universities for Italian students. To organize receptions and offer special courtesies to distinguished Italian visitors and scholars in the United States. The directors of the corporation include Professor John L. Gerig, professor of Romance languages at Columbia University; Archibald L. Bouton, professor of arts and science, New York University, and Dr. John H. Finley, of the editorial department of the New York *Times*.

The Christian Science Monitor writes editorially as follows: "In no city in the world is so much done for school children in the matter of excursions into the country and visits to the zoological and other public gardens as in Berlin. The authorities meet the schools in every possible way, reducing railway fares and admission charges to a minimum, and it is nothing unusual for the traffic to be held up while a long procession of happy youngsters crosses the road with one or more masters in attendance. The latest development on these lines is the *Baldur*, a huge motor-boat which has been built for school excursions by a social welfare society with the assistance of the municipality. The boat is fifty meters long and accommodates 200 children, its cabins of various sizes containing from two to eight beds. Each cabin is provided with running water and electric light; there are double decks and all meals are served on the upper one, so that the young passengers are in the open air all day long. Fresh water is carried in thirty tanks and all the cooking—plain, but very plentiful—is done on board in the commodious kitchen below decks. Up to the present time the *Baldur* in its comparatively brief existence has afforded a delightful holiday

to more than 100,000 children of the Berlin municipal schools. Its construction renders it independent of the regular landing places, so that it is able to put in at any desirable spot for bathing or sightseeing. Not only the Havel lakes are traversed in this pleasant manner, but excursions lasting several days, extending as far as Dresden, are sometimes made, all places of interest on the route being pointed out by the accompanying teacher. No wonder that a 'voyage' in the *Baldur* is coveted by every Berlin youngster."

A REPORT issued by the trustees of the British Museum describes the progress during 1929 both of the collection at Bloomsbury and of the Natural History branch of the British Museum at South Kensington. The director and principal librarian of the British Museum, Sir Frederic Kenyon, records a rise in the general attendance of visitors at the museum of over 10,000 compared with the previous year. The figures are 1,191,758 for 1929, and 1,181,617 for 1928. He attributes the greater part of this increase to the longer hours of opening on Sunday afternoons, which came into force in October, 1928. The month of August, 1929, with a total of 161,697 visitors, showed the highest monthly total on record, and in general the attendances in the second half of the year exceeded those in the earlier months. The number of visitors to the reading room fell off by rather more than 1,000 from the high total of 1928, the figure for 1929 being 214,375, an average of 707 daily. Visits of students to particular departments fell off from 276,890 to 272,352. Dr. C. Tate Regan, the director of the Natural History Museum, notes a general decrease in the number of visitors to South Kensington from 567,273 in 1928 to 541,198 in 1929. The Sunday afternoon attendances have decreased by less than 500, and the lectures of the official guide were attended by 12,972 persons, as against 13,826 for the previous year. The museum building is being extended and the new Spirit Building, designed at present for the use of the department of entomology, almost completed.

DISCUSSION

COMMENTS ON GRADUATE WORK

AT the Twenty-ninth Annual Conference of the Association of American Universities, held at the Catholic University of America in 1927, Dean Charles S. Slichter, of the University of Wisconsin, presented a paper on "Debunking the Master's Degree."[1] The paper, as the topic indicates, was chiefly destructive. Many parts of it were rather extreme, and on the whole, as one reads it now, it seems unjustifiably pessimistic.

Before one reads very far it becomes obvious that the whole discussion is aimed primarily at the master's degree in education—by no means at the master's degree in departments of liberal arts colleges. Perhaps there is some excuse for not mentioning the latter. The public has long since been at work, debunking the advanced degrees in the fields that are dead, non-functional, petty, chaffy, worthless. Higher degrees in education in the United States have come about in answer to the demands of a scientific age; to meet the needs of a practical, humanistic, strong, virile, progressive, wide-awake people. The dean says:

> Any teacher or school officer, who because of lack of personality or lack of intellectual vigor and ambition, can not secure promotion on his own personal merits, has now open to him a machine method of securing promotion. Instead of weak men being starved out of the profession, they now have at hand a direct-acting device for furthering their advancement.

Any one who wishes to know has to make only a brief survey to find out where, in the whole program of education, the greatest number of freaks and weaklings may be found. Men in education are constantly on the firing line, and those who are lacking in personality and intellectual vigor are soon nipped off. There are men in higher institutions who are "making good" by continuously shuffling their chaff and using high sounding terms who would not last three days as a teacher or principal in a town of three hundred people. Men in education are not elevated nor protected by institutionalism,

[1] *Journal* of Proceedings and Addresses of the Twenty-ninth Annual Conference of the Association of American Universities, Chicago Press.

but stand or fall, depending on their personal strength or weakness. It is further stated that:

> We make it possible, in part, to perpetuate the weak in our schools and set up a method which permits promotions to be obtained mechanically, even by those colorless individuals who seek refuge in the teaching profession because they lack the courage and virility to face the chances and hardships of a business or professional career.

In answer to this it may be truthfully said that there are many men who leave the teaching profession and go into business, but find it so tame, dull and uninteresting that they return to educational work where they can find a real challenge for their energy and abilities.

In this paper a great deal is said about time requirements, size of classes, and so on. On page 109 where reference is made to so-called standards for the master's degree we find:

> First, a rigorous standard which sets up a minimum residence of two semesters of three quarters during the regular academic year where sessions are long and the number of students in lectures or in seminars is moderate, and then a second standard of residence for the short summer sessions, where time is brief and the size of the classes is large and true graduate seminars impracticable. It is possible, I am informed, to obtain a master's degree from one of our institutional members in four short summer sessions and never register in a class of less than two to five hundred. No instructor, under such a system, can receive any true impression of the ability or personality of the candidate or materially impress his students with the spirit of scholarship.

He failed to state that some of our higher institutions have a system of follow-up work after the summer session is over. This means that the work for the master's degree really extends over a consecutive period of four years instead of over just one "regular academic" year. The educationist takes work during the summer, and then goes back to his school, or school system, which may be an actual laboratory, and applies what he has learned. If he continues this over a period of four years it is certainly in keeping with sound principles of psychology to say that he would have a more thorough knowledge of the field covered than he would if he had covered the same material within a period of ten months. His research, too, should be more thorough, more reliable and of greater value than many of the masters' theses that are scrappily and hurriedly written within the limits of two semesters.

Concerning the size of the summer school classes it should be said that in some of the universities the students are for the most part mature, cultured and experienced. Many of them hold important positions as teachers, heads of high-school departments, supervisors, superintendents of city school systems, heads of departments in colleges, and some of them are even college presidents. It is not an uncommon thing to find in Columbia, Chicago or Yale students who already have a master's degree, and some even who have the Ph.D. degree. With students of this kind one often gets more from fellow members of the class than he gets from contacts with instructors during the "regular academic" year.

If we look at the matter from the broader point of view it seems that we should be compelled to admit that instead of "letting down the bars" relative to requirements for advanced degrees in education the American universities have raised them at this point; that the work is more scientific, that the material is less stale and therefore more functional and that the degrees on the whole are immensely more valuable to the individual and to society than ever before in the history of our country.

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SPECIAL CORRESPONDENCE

A MID-WEST ACADEMY

HISTORIANS of American education have given to those secondary schools of the past century, the academies, a few concise paragraphs which state that they were the successors of the Latin grammar schools and which briefly outline their functions—to prepare young people for college and to give some training for teaching in the elementary schools. Such facts are the truth in a nutshell, and are

obviously all that a historian need say. He can afford neither to give valuable space to reminiscence nor to expatiate on the heritage of this unique type of institution. That he may leave to the essayist, whose fondness for indulging the backward look is usually tolerated.

The academy I knew just after the turn of the century served our community in rather a special way. It was the goal of the country boy and girl to whom it stood for the key to college, or perhaps as a substitute for college itself. It offered not only such "higher branches" as were taught in the high schools of the period—it went further than that, with Greek and trigonometry and geology; and it offered these with such a collegiate air that many students who would never see the inside of a college or a university felt fully compensated for the loss of such a privilege. The fact that country schools were ungraded and that they were seldom in session more than seven months in the year meant that rural students were late in reaching the secondary schools; they were often sixteen or eighteen before they had gone through the fifth reader or the arithmetic a sufficient number of times to be considered graduated. So it was to the academies that these found their way, rather than to the high school with its unequivocal four years' course and with its noticeably younger student body which would tend to make the farm-bred student conscious of his own backwardness. At the academy among his peers he flowered quickly and even acquired an air of superiority because of certain exemptions from public school routine.

Our academy, when I came to it, was entering upon its last decade of usefulness, and while here and there there were signs of decay I did not then perceive them. In my eyes the place had all the fancied distinction of a college. One need not, for instance, report for any sessions except his class hours. To study in the morning and stroll leisurely to school of an afternoon seemed a proud privilege. "Vacant periods" were spent anywhere—there was no hated assembly room where attendance was taken and study supervised. How delightful to study on the stairs, in the empty chapel, under the trees in fine weather, or even go up town in a free period to see whether any neighbors from home were in to trade that day.

Such personal dignity as one acquired at a step was flattering, too. To come straight from the casual intimacies of a country school to an atmosphere semi-collegiate, to be a "student" instead of a "pupil," and best of all to be called "Miss" or "Mister" was little short of intoxicating. At the academy little attention was given to discipline—people were expected to "behave," and though there might be breaches of conduct on the part of some unruly hot-head, it happened more often that the bad boy of the country school, if he got to the academy at all, left his boorishness behind and took on a pale cast of gentility because "Prof" expected him to fit into the scheme of things there.

Of course the principal was a "professor" and was ostentatiously dubbed "Prof." That, too, was collegiate, we thought. The principals I knew were mild men with A.B. degrees or their equivalent, and they taught everything from rhetoric and Chaucer (*Whan that Aprille* with a doubtful pronunciation) to trigonometry and physics. Two or three lady teachers were employed, one for classical languages, others for history and certain miscellanies; but when that pushing branch of mental science, psychology, clamored for attention the course fell to "Prof," who handled it rather vaguely. The text-book by Watts, "On the Mind," furnished abundant opportunity for punning. "W'at's on the mind?" youths asked maidens in season and out.

There was another convenience; the academy year was divided into terms. That meant that boys could help with the farm work in the autumn and spring, coming to town in the winters for short courses in commercial subjects or for a few weeks' work with science and mathematics. Girls usually managed a two-year course: the one called the scientific course led to the securing of a better certificate for teaching in the schools of the county; the one called the classical lured those whose bright beacon was college. These were not always the more ambitious—they might be those younger

sons and daughters who had come to their kingdom in a day of greater leisure and prosperity.

Expenses for tuition—the academy was a private institution—and books seemed considerable; hence we must live as economically as possible. Most girls from out of town undertook light housekeeping, though we never called it that. We rented and furnished an upstairs room in the house of some thrifty widow and proceeded to "board ourselves." The arrangement was called just "rooming" as distinct from "rooming and boarding." Early in September certain fathers of ambitious daughters would be seen hauling to town a wagon load of goods—a cot or bed, such tables and chairs as could be spared from home, an oil stove, or even a small cook-stove and a cord of wood, and two strips of carpet, one "rag" and one ingrain. The rag carpet was for that side of the room where stove and wash-stand stood. Arranging one room to simulate kitchen and parlor was great fun for girls who had not quite outgrown a love for playing house. Naturally we had to buy some things, and a trip up town for a small shiny teakettle or coffee-pot was an exciting event. When school actually began we came with hampers of food, enough to last half the week, bowls of fried chicken, loaves of bread and pies. Thus "finding our own board," as my mother called it, resembled a prolonged picnic, although by Thursday night one bought bread and ten cents' worth of beefsteak to eke out the dwindling provisions. On Friday afternoon we returned, hungry, and happy, to the bosom of our families.

I do not know how well the classics were taught elsewhere, but my acquaintance with them began auspiciously—I had fallen on good days when the teacher was an inspired one. That was a perfect autumn which brought me, in addition to new friends and a new dignity, the strange, new charm of Latin words: *puella,* girl; *columba,* dove. And the teacher had such a way with her! By a sort of alchemy she knew she could transform even the passive conjugation of verbs into something intriguing. Greek, begun the next year, was harder, but I must have it, of course, as mine was the classical course. So I pegged away at it, enduring the syntax and the uncongenial Anabasis in order to reach the shining goal of the Iliad, three books of which we read in our senior year. Catching the teacher's enthusiasm, we deemed it reward enough, after marching all those parasangs, to see Thetis rising from the sea in the rosy-fingered dawn. Even if our course had not required Greek we would have taken it for this teacher's sake. She was a thorough student, a lover of learning and a devotee of classical studies. I remember how solemn she looked the day she told me that "Yale had dropped Greek as a prerequisite." I tried to look solemn, too, for I felt that her announcement had sounded the death knell of cultural education.

The school, which had once been a denominational one, still kept in its religious influences the temper of the Scotch sects that had governed it. We had chapel every day, and since a large proportion of the students came from Scotch-Presbyterian families we sang Psalms exclusively, lest we make our brother to offend. I, as an outsider, rebelled somewhat, but I joined lustily, nevertheless. When one is in full health and dominated by the urge to conquer something, anything, a fine battle song of David's will furnish an excellent emotional release. The imprecatory psalms were not deleted from the collection. Side by side with the beautiful

> I to the hills will lift mine eyes
> From whence doth come mine aid

appeared

> The nations were crushed and expelled by Thy hand,
> Cast out that Thy people might dwell in their land.

I think we took a mischievous delight in the curious word order which the Scotch fathers had employed in wresting the originals into English metrical forms. Perhaps we recognized in these strange poetic offerings the idiom of our own translations from Caesar, which were scarcely less awkward than

> O, bless the Lord who to their teeth
> Us gave not for a prey.

or

> Let them be turned backward, Lord,
> To me Aha that say.

There were relatively few "activities" in those days, but the school sought in various ways to provide for diversion, especially that keyed to the uplift. We had no director of dramatics, but we gave a few self-supervised plays. In music we fared better, and I still remember the thrill I had when a printed postal invited me to join in the preparation of an "oratorio" a local music society was putting on. It was the first time I had ever heard the word. The rehearsals were a joy, and the performance seemed to me the acme of musical perfection. To complete my bliss I had three carnations to wear for the great occasion.

It was at the academies that the literary society enjoyed its fullest distinction. It was more sophisticated than the country lyceum; yet it was not overshadowed by the snobbishness of fraternities and sororities as college societies were. We held frequent and enthusiastic meetings, at which we delivered our own orations, halted through embarrassed speeches made extemporaneously—the "Extempo. class" was a group of victims chosen each time to speak impromptu on subjects announced by the secretary—and debated such old standbys as the tariff and immigration questions. We had outgrown such abstractions as "Resolved: That the pen is mightier than the sword," but I remember upholding the affirmative of the question—"Resolved: That the Civil War could have been averted." Of course I lost. Had my adversary been less stout in her defense and had my own powers of controversy been greater, I should still have lost because of my mind set. There simply was no argument on my side, I thought. In those days there was little doubt that the Civil War was foreordained.

Sometimes I am tempted to blame the academy for certain great gaps in my knowledge. Aside from the classics I seem to have learned nothing well. Of my chemistry little is left save a few formulas for common substances, a vague impression of litmus paper and test-tubes, of holes burnt in my laboratory apron by acid and of the nice boy who kept me from getting the acid all over my fingers. I dabbled in geology, but I do not recognize igneous rocks to-day, though I might guess at amygdaloid, the name of which fascinated me. Another name came back to me, strangely enough, a few summers ago when I was portaging in Alaska, pushing on through swamps where for miles the passage was choked by a rank growth of common jointweed. "*Equisetum arvense!*" I exclaimed aloud, but my half-breed companion could not appreciate my erudition. The pallid ghost of *Equisetum arvense* seemed a relic useless enough of my botany days. But in my juster moments I assign the cause of my imperfect knowledge to an undisciplined will which led me away to Horace and the Sabine farm when I should have fought it out with science and "the mathematics." Perhaps —if there had been field trips and well-equipped laboratories and well-trained teachers. . . . But, oh, dear Brutus, the fault is seldom in our stars.

In spite of the customary platitudes of class songs which declared that our school should endure till the stars grew cold, the academy closed its doors at the end of the decade. A devoted principal, clinging to it as to a faith, sank his own funds in it to keep it going those last few years, but its work was done. Better economic and educational conditions in the countryside brought the rural children to the town schools on time, and a changing notion of who should be educated was bringing the colleges within the reach of all. I believe I had not, even then, a real regret for the passing of the academy; certainly I have none now. I have come to hold in high esteem those discerning souls and institutions that can recognize the end of a cycle, finishing with dignity what was begun with honor. The old brick building has been replaced by another with a different function, and soon the place that knew our alma mater shall know it no more. But if I ever pass that way again on an autumn day when the hard maples are yellowing in the sunshine of a Mid-west October I shall linger a little while to hear whether those talking leaves are not still chanting Hebraic psalms in English meters, or echoing the protests of the pious Aeneas to the sorrowing Dido.

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QUOTATIONS

TECHNICAL EDUCATION AND INTERNATIONAL RELATIONS

IN this issue we print some notes concerning the report of a deputation recently sent by the Manchester Education Committee to visit technical institutions in certain continental cities. The conclusions arrived at stress the fact that every country visited has pinned its faith to the highest forms of technical education, and that, in every case, extensions are in progress. After glowing accounts of the institutions seen, the deputation says that "nothing of their kind would be unattainable in this country," if only our people willed it so. Finally we note the significant phrase: " . . . in the contest for supremacy the ground has been shifted from armaments to technical education."

It is true that, in this country, we have not yet pinned our faith to technical education. In that field we appear to be behind our continental friends. But is it true that we are making no effort to bring our technical education up to the standard recognized as essential in a competitive world by continental countries? If the question were put to many of us it is possible that the answer would be that our efforts in that direction are negligible; and because of our academic traditions it is possible that the answer would not be untinged with a certain amount of satisfaction. Be that as it may, however, the answer would not be correct.

As a nation we are sometimes too prone to belittle ourselves and our systems, and reports from other countries occasionally cause us to ignore our own achievements; yet achievements there are in our own field of technical education. In this country technical education by no means stands still. Great developments have been slowly but surely proceeding for some years.

The new president of the Association of Teachers in Technical Institutions (Mr. H. A. Norman) deserves well for having summed up, in his presidential address to the association's annual conference, activities and developments of which many educationists are as yet scarcely aware.

Since the war it has become painfully clear that our hitherto secure industrial and commercial conditions have changed. Countries which used to buy from us have themselves become producing countries. The advance of the applications of science to industry, to transport and to communication has helped to force us to face unprecedented competition. But already we have taken steps to adjust ourselves to the new conditions, and to discover how our system of technical education can give us the help we have a right to expect from it.

Mr. Norman indicated the work of such committees as the Malcolm Committee on education and industry, the Balfour Committee on trade and industry and the Emmott Committee of inquiry into technical education. He showed how, through these committees, employers, employees and those concerned with technical education have come together to survey the problems ahead of us.

Our British method is usually to work through local rather than national machinery, and so Mr. Norman reminds us that the work of the national committees we have mentioned was but a beginning. They surveyed and stated problems. Now local inquiries and action are busy in the solution of these problems. In particular Mr. Norman instanced the work of the Yorkshire Council for Further Education, and such inquiries as that of the West Midlands metal-working area. He stressed, too, the importance of the work of committees of national standing (but working, we understand, through the processes of local inquiry) such as the committees on engineering and salesmanship set up by Lord Eustace Percy. Nor did he forget to urge what we have urged before in these columns: that, while the best way of solving problems is to attack them by local action, there should be appointed a small national committee, the function of which should be to draw together the experience and knowledge so obtained, and to act as a clearing house through which they could be disseminated. Such a committee is, we believe, a *sine qua non* of the future progress of education.

If we may judge from Mr. Norman's address, technical teachers in this country have, like their continental colleagues, realized that it is very probable that in the future, "the contest for

supremacy" will be shifted "from armaments to technical education."

The world needs peace and progress, but the latter is dependent upon the former. It is, perhaps, true that both are words which have been so often used to express the dreams of men that they sometimes appear, even to the most faithful idealist, to be just a little hackneyed. None, we fear, can forecast the future, but Mr. Norman's address showed that not only were those concerned with technical education dealing vigorously with the means of securing progress, but also that their hope for peace was something more than merely pious. We congratulate them on refusing to stop short, in their efforts towards real progress, at local and national committees and inquiries.

Many teaching and other organizations have for some time paid special attention to international problems which are very clearly within the province of all who take a properly wide view of all the ultimate implications of educational service. Outstanding among such movements have been the contributions made by local education authorities and by the primary, secondary and technical teachers' associations towards what may be described as League of Nations teaching in the schools (their report on this subject was recently presented to the president of the Board of Education), the work in connection with general interchange of teachers by the Joint Committee of the Four Secondary Associations, and similar interchange between Britain and America under the auspices of the English-Speaking Union.

We emphasize the fact that technical teachers have helped in certain of these movements because too frequently there is an impression that they are concerned with little else than isolated studies in technology and commerce and the more material problems of industry. By their broader international activities no less than their specialized local and national action they will help powerfully to build the bulwarks within which they may work for the progress of that wider technical education without which industry and commerce can be neither informed nor humanized, nor made efficient.—*The Journal of Education (London)*.

REPORTS

THREE IMPORTANT DOCUMENTS

THREE important contributions to the history of education in the United States are the "Annual Report of the Superintendent of Schools of Boston" for the year ending September, 1929; the "Annual Report of the Superintendent of Public Schools of the City of Philadelphia" for the same year, and "Progress of the Public Schools of New York City, 1924–1929." The first document gives an account of the development of education in Boston from 1630 to date. It was produced because the year 1930 marks the tercentenary of the foundation of Boston, and the report gives the history of the growth of the Boston school system. According to Jeremiah E. Burke, the superintendent, the report was issued with the hope that it will be instructive to the general reader and helpful and stimulating to teachers seeking material for classroom programs, and that it might prove serviceable for future references and further historical investigations. The Philadelphia report gives a résumé of the educational tendencies of the last decade or more, and, according to the superintendent, Edwin C. Broome, it seemed a fitting introduction to look around and see what tendencies in education were and whither they were leading.

Dr. Broome writes:

> While we are closely confined to the problems and management of our local schools it may do us good to look across this great country once in a while to see what is going on in education and to contemplate our relations to it.

"Progress of the Public Schools" contains a statement of the most important results accomplished in the administration and development of the New York City school system from May 1, 1924, to July 31, 1929. In the opinion of the superintendent, Dr. William J. O'Shea:

> A consideration of the progress of the schools during an extended period, say for five or ten years, has the very great advantage, among others, of showing the phases of our work in which progress has been made and the extent of such progress, more clearly and definitely than is pos-

sible by a year to year appraisal. In my opinion, it would be of value to our school system to establish the practice of making such appraisals every five years.

Dr. Burke is very enthusiastic about the Boston schools. He writes:

If there is anything different about Boston, this distinction has its origin in the venturesomeness, the ingenuity, the sagacity, the integrity, the idealism, and wherewithal the intense love of liberty and learning that characterized these masterful forebears of the last three centuries. Concurrent with the historical achievements of Boston's three hundred years has been the origin, growth and serviceableness of her system of public schools. The expression as well as the molder of an enlightened public opinion, the schools have been at all times contributors and sharers in our city's prestige and grandeur. From the very beginning, Boston has been the home and the patroness of education. Here American education was born and here it has thrived. The whole country acknowledges its indebtedness to Boston's culture. Paraphrasing the words of Pericles in his apostrophe to Athens, one might well declare, "Boston is the school of America."

According to Dr. Burke the Public Latin School, the earliest and for nearly half a century the only public school in Boston, was founded in 1635. It is the oldest public school with a continuous existence in this country. Education had been exclusively for the ministry. In order to establish schools that would give instruction in subjects more elementary than the classical, in 1685 the town voted to establish two schools for the teaching of children to write and to cipher. The course of study was extremely simple and did not include reading. Only two of the three R's were included. Reading was learned at home or from private teachers. These early schools were for boys. Boston gave no consideration to the education of girls until 1789, when the town decided to make the writing and ciphering schools, to which by that time reading schools had been added, coeducational. Girls were admitted to attend these schools from April to October when there was room for them because many of the boys had work to do in the summer. It was not until 1828 that girls were admitted to the elementary school on equal terms with boys.

As the schools for "teaching children to write and cipher" became popular, there was created a demand for an enlarged curriculum; but the masters of these schools had been chosen because of their efficiency in writing and ciphering and were incompetent to teach such new subjects as reading, grammar, geography, history and good English. Another group of masters was needed to teach these subjects, hence there arose about 1740 a system of administration known as the "double-headed" system. The children in each school were divided into two sections, one attending in the grammar master's room on forenoons and in the writing master's room on afternoons, while the other part attended in the reverse order. The single-headed plan was established in 1847 after an agitation for the abolition of the double-headed plan was started by Lemuel Shaw, chief justice of the Supreme Court of Massachusetts, who was a member of the school committee in 1830.

Inspection of the schools as required by law was a very stately affair. The ministers, the selectmen and the committee—sometimes numbering more than twenty—the chief clergymen and elders of the town went in stately procession at the appointed time to inspect the schools. They heard the classes read—Primer, Psalter, Testament, Bible and Preceptor—examined the writing and the ciphering books, listened to recitations in Latin, aired their own erudition, took their departure and left on the records their testimony to the good behavior and proficiency of the pupils and the fidelity of the master.

The English High School, the first of its kind in America, was established in 1821, to meet the need of a more democratic type of secondary education. In 1870 the first kindergarten was established as part of the Boston school system. This kindergarten is believed to be the first free public kindergarten in the world. Adequate high-school instruction for girls was not provided until 1854 when the Girls' High School was established, although a girls' high school existed in Boston from 1826 to 1828. A training school for teachers was established in 1852 and is the second oldest city normal school in the country.

As the opportunities for the education of girls lagged behind those of boys, so the em-

ployment of women as teachers succeeded that of men by many years. As late as the year 1800 there is no mention of women upon the roster of school employees. Dame schools, established in the early days of Boston, were taught entirely by women. These were private schools engaged chiefly in teaching the A, B, C's. In a petition for the establishment of primary schools in 1818, it was stated that such schools might be taught by women and they were.

Among the early schoolmasters special mention is made of Ezekiel Cheever. He is considered preeminent among all the teachers of the early schools and preeminent among the New England teachers of all times, a ripe consummate flower of the Puritan church. He taught in the Boston Latin School for thirty-eight years. Of him, Cotton Mather, one of his pupils, said: "Ink is too vile a liquor, liquid gold should fill the pen by which such things are told."

These and other interesting facts about the development of a great educational system may be gleaned from Dr. Burke's report of 313 pages on the three hundred years of Boston's schools.

The Philadelphia report discusses the general tendencies in education in the United States during the last decade or more under the headings growth in school population, elementary and higher schools compared as to growth, change in plan of school organization, types of schools, character building, increasing professional requirements for teachers, school athletics, health education, scientific educational practice and exploitation of the schools. These tendencies were presented in order to know to what extent conditions in Philadelphia conformed to nation-wide conditions. Dr. Broome found that educational conditions in Philadelphia corresponded very closely to country-wide trends, especially of the larger cities. Dr. Broome states that over 24 per cent. of the American people are attending school because practically all states now require by law school attendance to the age of fourteen; that schools are constantly improving, educational opportunities are more varied and attractive; that the people are showing an increasing appreciation of the value of education in the life of the nation. Ten years ago the prevailing type of school organization was the 8–4 plan. The commonest arrangement to-day is the 6–3–3 plan with some variants, such as 6–4–2 and 6–2–4 and even 6–4–4, the last two years being known as the junior college. Over 90 per cent. of the 18,000 high schools in the country are comprehensive schools and 99 per cent. are coeducational. There has been an increasing tendency during the last ten years for schools to emphasize character building as their main objective—a tendency due, for one reason, to an attitude of looseness and disregard for moral standards that the war produced.

"Progress of the Public Schools, 1924–1929" by Dr. O'Shea is a résumé of the growth of the New York City school system during that period and was issued as a sort of campaign document for the reelection of Dr. O'Shea as superintendent, although there was no opposition to his reelection. The document is a clear-cut statement of facts which show the high spots of the system. According to Dr. O'Shea, service is the organizing and controlling thought in the New York public school system and the fundamental aim of the schools is the development of moral character.

The day school branch of the school system included 624 school organizations and the total register was 1,015,539. The accumulated cost of the school plant as of July 31, 1929, was $403,428,965.65. From May 1, 1924, to September 20, 1929, there were provided 130 new buildings, 34 additions to old buildings and 23 temporary buildings. Approximately 256,651 new sittings were added. Schools for special educational purposes were erected, among which may be mentioned a building for the school for the deaf, which contains every facility required for the instruction of deaf children, and a technical high school with 5,500 sittings which will prepare pupils for admission to technical colleges or other schools of technology or for entrance into industry has been initiated by the Board of Education. Substantial increases in salary for teachers and supervisors were made during 1928 and 1929. The policy of granting sabbatical leaves was instituted in February, 1925. Since that time sabbatical leaves have been granted to 3,586 supervisors and teachers.

Owing to the enormous increase in motor vehicle traffic and the daily toll of children

killed or seriously injured, a vigorous school safety campaign has been conducted. One of the most important activities of the period was the revision of the course of study in elementary schools. This work will be completed in the near future. Ten revised courses of study and syllabuses were completed. Teaching pupils to study was stressed. Health education was emphasized.

The three reports are worth careful study by every student of modern education. They contain a fund of information that is not found in any text-book of education and, for that reason among others, are valuable source books of education.

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EDUCATIONAL RESEARCH AND STATISTICS

THE READY-MADE DRAWING WITH RELATION TO STUDENT ACHIEVEMENT

AN effort to ascertain whether students who make drawings of laboratory specimens acquire more knowledge than those who make their observations and are presented with accurate, ready-made drawings to which they merely attach labels resulted in a series of experiments conducted in a class of approximately two hundred freshmen in a course in plant biology given as the first half of a survey course in elementary biology, the second half of which is devoted to animal biology.

It is our belief that the aim of such a course is to give the student some understanding of the fundamental principles of life as exemplified by plants and animals and to acquaint him with living organisms in order that he may better understand the world about him. The question then arises as to whether such an aim can best be attained by presenting the subject as an intensive study, using only a few types of plants as illustrative material, or make it a broader course covering representative types chosen from the various plant groups. We feel that the latter method is best adapted to a survey course. If this is true, it follows that the student must acquire a large number of morphological facts in a short period of time in order to get a comprehensive idea of the plant world as a whole.

The usual way of acquiring these facts is the laboratory drawing method where the student is given living or preserved specimens and from these makes certain observations which he represents on paper in the form of drawings. The time element here puts a definite limit on the scope and, if this larger field is to be covered, we are forced to seek some quicker and at the same time equally satisfactory means of aiding the student in acquiring these facts on which to base his broader conception of biology, in the limited time allotted. This situation brings us up against the questions: Must the student make drawings in order to learn? Will he retain his knowledge as readily if he does not represent on paper what he sees with his eyes? Can ready-made drawings be used as a tool for acquiring knowledge just as the other laboratory equipment is used?

An attempt to answer the questions resulted in this experiment formulated and carried out with a view of ascertaining, if possible, the value of the student-made drawing as an aid to student achievement. Eleven laboratory sections with a total of 202 students, meeting once a week for a three-hour period, were divided into two groups, each containing approximately one hundred students. The first group of five sections meeting Monday, Tuesday and Wednesday made drawings from laboratory specimens in the time-honored manner. The second group, meeting Thursday, Friday and Saturday, were given the specimens from which they made their observations but were provided with drawings multigraphed from stencils to which they merely attached the proper labels.

The subject-matter for this experiment was chosen from two plant groups, the Pteridophytes and Spermatophytes. The licorice fern (*Polypodium occidentalis*) was chosen as a representative form from the first group; and the cultivated hyacinth, being about the only thing available at that time of year, was chosen from the second group.

Great care was taken to keep constant every possible variable that might influence the quality of the work except the factor on which the experiment was based, namely, the drawings. The students were directed in their work by three graduate assistants, who in turn worked directly under the writer's supervision and were instructed to handle their sections in exactly the same way. The writer's time was divided about equally between the two sections each day in order to see that the work was conducted as uniformly as possible.

Both groups were given exactly the same laboratory outlines to follow in making their observations. The subject-matter was consistent throughout and when general verbal instructions were to be given, the writer gave these in order that all sections be told the same thing. Whenever laboratory discussions were necessary, care was taken that the same points were brought out in all the sections.

In order that the achievement be based entirely upon knowledge derived from the laboratory, any mention of the subject-matter of the experiment was carefully avoided in the formal lectures given to the whole group twice each week.

An objective written examination on minute morphological structure and function was given as a means of measuring the achievement in these two groups. The reliability coefficient of this examination was found to be .90. As a result of withdrawals and failure to take the final test only 178 students out of the original number were used.

A comparison was made first between the achievement of all students who made their own drawings and all who did not make drawings. In eighty-seven cases of those who did not make drawings the average achievement was 80.6 with the probable error of measurement found to be .27. And in ninety-one cases of those who made drawings the average achievement was 75.4 with a probable error of .32. There is a difference in achievement between these two groups of $5.2 \pm .42$, which is twelve times the probable error and in favor of the group that did not make drawings. But this, while significant, was of little value because there was a difference in the mental abilities of the individual students in the two groups. Statistics compiled by the personnel department of the university and based on the American Council on Education psychological tests given all entering freshmen were used, and the group which did not make drawings was found to have an average percentile rank of 52.1, while that of those making drawings was 49.0, making a difference of 3.1. The following table shows these data more in detail:

TABLE I

	Did not make drawings	Made drawings
Number of students	87	91
Average achievement	$80.6 \pm .27$	$75.4 \pm .32$
Standard deviation of achievement	11.8	14.4
Average percentile rank	52.1	49.0
Standard deviation of percentile rank	27.3	28.4

Students were then chosen from the two groups and paired according to their mental abilities, care being taken to keep the pairing within the probable error of the percentile rank. The following data were obtained:

TABLE II

	Did not make drawings	Made drawings
Number of students	66	66
Average achievement	$81.3 \pm .46$	$75.6 \pm .37$
Standard deviation of achievement	17.4	14.2
Average percentile rank	$50.5 \pm .65$	$50.8 \pm .63$
Standard deviation of percentile rank	24.5	24.1

This comparison shows a difference in average achievement between the two groups of $5.7 \pm .6$, which is eleven times the probable error and therefore can not be attributed to error in grading. This difference is again in favor of the students who did not make the drawings. This increase in achievement was

not affected by the mental ability of the students, for the difference in the percentile rank of the two groups was only .3 ± .91 which is about one third of its probable error.

The question might arise as to whether the results of this experiment would be the same if only low ability students or high ability students were chosen for the test. Pairings were then made of students with percentile rankings above the freshman average of P.R. 50 and another group of pairs was chosen from students with percentile rankings below the freshman average. The following tables show the results obtained:

TABLE III
STUDENTS ABOVE P.R. 50

	Did not make drawings	Made drawings
Number of students	35	35
Average percentile rank	78.2 ± .53	78.2 ± .53
Standard deviation of percentile rank	14.0	13.9
Average achievement	86.6 ± .42	78.3 ± .50
Standard deviation of achievement	10.9	13.1

Here we have no difference between the two groups in mental ability, but we find a difference in average achievement of 8.3 ± .65 which is thirteen times the probable error and again a factor in favor of the group that did not make drawings.

TABLE IV
STUDENTS BELOW P.R. 50

	Did not make drawings	Made drawings
Number of students	31	31
Average percentile rank	27.0 ± .44	27.6 ± .43
Standard deviation of percentile rank	12.3	12.0
Average achievement	78.3 ± .27	71.3 ± .27
Standard deviation of achievement	7.45	14.5

In this case we find a difference of 7.0 ± .59, which is again significant because it is about twelve times its probable error. This comparison shows that the results of the experiment were not affected by high or low ability students and that the differences found here, in favor of the group who did not make the drawings, did not vary greatly from those previously found. The difference of 1.3 per cent. in favor of the students of higher mentality is too small to be of any great significance.

A further problem presents itself concerning the effect of the different laboratory assistants upon the results obtained from the experiment. Although we made every effort to control the very evident possibility of variable factors here, nevertheless we felt that comparisons in this case might show us some difference that would detract from the consistent results in favor of the students who did not make drawings. New pairings between students of equal abilities were made from the laboratory sections of each graduate assistant, involving 126 of the original 178 students. The following tables give the data compiled:

TABLE V
ASSISTANT EDGE

	Did not make drawings	Made drawings
Number of students	30	30
Average percentile rank	58.2±1.05	57.7±1.03
Standard deviation of percentile rank	27.0	26.5
Average achievement	79.7 ± .55	70.9 ± .61
Standard deviation of achievement	14.3	15.7

TABLE VI
ASSISTANT PATTERSON

	Did not make drawings	Made drawings
Number of students	15	15
Average percentile rank	38.7±1.63	39.7±1.56
Standard deviation of percentile rank	29.8	28.8
Average achievement	77.8 ± .62	63.7 ± .96
Standard deviation of achievement	11.37	17.6

TABLE VII
ASSISTANT WHONG

	Did not make drawings	Made drawings
Number of students	18	18
Average percentile rank	56.7±1.33	56.2±1.31
Standard deviation of percentile rank	26.5	26.0
Average achievement	81.7 ± .47	69.8 ± .80
Standard deviation of achievement	9.4	15.9

In these cases the pairing of students of nearly equal mental ability was more difficult because of the smaller numbers involved. However, in the case of Assistant Edge, pairings were made which showed only a difference in average ability of .5 ± 1.47 and a difference in average achievement of 8.8 ± .82 which is eleven times its probable error and consistent with the previous results obtained from the group as a whole.

In Assistant Patterson's classes, the students showed a difference in percentile ranking of 1.0 ± 1.62 and a significant difference in average achievement of 14.1 ± 1.14, about twelve times the probable error in favor of the students who did not make drawings.

Assistant Whong's classes showed a difference in ability of only .5 ± 1.87 with a difference in average achievement of 11.9 ± .93 or thirteen times its probable error.

In all three cases the results showed a definite increase in achievement in favor of the students who did not make drawings, ranging from a significant 8.8 per cent. in the case of Assistant Edge, to 14.1 per cent. in the case of Assistant Patterson. Why there should have been a variation in the case of individual assistants, I am at a loss to explain other than that the increase in percentage of difference seems to progress inversely with the number of pairs of students compared. So that in the case of Assistant Patterson, where only fifteen pairs of students were used, the percentage of increase in achievement of the students who did not make drawings over those who did is as high as 14.1 per cent.

CONCLUSIONS

From the foregoing data we are led to a conclusion contrary to the prevalent idea regarding the value of student-made drawings in laboratory classes. We have found a consistent increase in achievement for those who did not make drawings over those who did. The correlation between the two groups made without regard for the differences in intelligence of the students involved showed an increase of 5.2 per cent. for those who did not make the drawings, with a probable error of only .42.

Where students were paired according to mental ability, the test showed an increase in achievement of 5.7 per cent. with a probable error of .6.

Students paired under the individual assistants showed increases of 8.8 per cent., 11.9 per cent. and 14.1 per cent., all in favor of the students who did not make drawings.

The experiment suggests also that neither method of instruction is particularly better adapted to students of below average intelligence than to those above.

It would seem, from the significant results obtained in this set of controlled experiments, that the new method has some pedagogical value. We do not attempt to generalize to the extent of saying that it would be advisable in advanced laboratory courses where training in observation and representation is necessary if the student is to succeed ultimately in the field of original research, for here new factors enter into the problem which are not involved in our experiment. However, we do feel that the ready-made drawing might be incorporated with value into the teaching method employed in survey courses in elementary plant biology.

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